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10/026,860	12/27/2001	Christopher John Nielsen	A363 0020/GNM	1173

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

		Application No.	Applicant(s)
		10/026,860	NIELSEN ET AL.
Office Action Summary		Examiner	Art Unit
		Frank Duong	2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>29 May 2007</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>2-12, 24-28, 37-41 and 47-63</u> is/are pending in the application.

   4a) Of the above claim(s) <u>47-63</u> is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>2-12, 24-28 and 37-41</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
   Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1. This Office Action is a response to communications dated 05/29/07. Originally

claims 2-12, 24-28, 37-41 and newly added claims 47-63 are pending in the application.

Claims 47-63 are withdrawn from consideration for the rationales stated below. Thus,

claims 2-12, 24-28 and 37-41 are examined on the merits. Applicants should cancel the

non-elected claims 47-63 in a response to this Office Action to expedite the prosecution,

should the response place the instant application in a favorable condition for allowance.

Election/Restrictions

2. Restriction to one of the following inventions is required under 35 U.S.C. 121:

>   I.   Claims 2-12, 24-28 and 37-41, drawn to assigning period of time for
>
>   information to be transmitted, classified in class 370, subclass 395.4.
>
>   II.   Claims 47-55, drawn to assignment of variable bandwidth or time period
>
>   for transmission or reception, classified in class 360, subclass 468.
>
>   III.   Claims 56-63, drawn to synchronizing, classified in class 370, subclass
>
>   503.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as subcombinations disclosed as usable together

in a single combination. The subcombinations are distinct if they do not overlap in

scope and are not obvious variants, and if it is shown that at least one subcombination

is separately usable. In the instant case, subcombination II has separate utility such as

"consulting the list a preset time intervals and transmitting any partially filled packet

scheduled for the expiry time at the expiry time, ..., before the expiry time." See MPEP § 806.05(d).

Inventions I and III are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct if they do not overlap in scope and are not obvious variants, and if it is shown that at least one subcombination is separately usable. In the instant case, subcombination III has separate utility such as "*a first logic means for identifying ... without further delay.*" See MPEP § 806.05(d).

Inventions II and III are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct if they do not overlap in scope and are not obvious variants, and if it is shown that at least one subcombination is separately usable. In the instant case, subcombination III has separate utility such as "*a first logic means for identifying ... without further delay.*" See MPEP § 806.05(d).

The examiner has required restriction between subcombinations usable together. Where applicant elects a subcombination and claims thereto are subsequently found allowable, any claim(s) depending from or otherwise requiring all the limitations of the allowable subcombination will be examined for patentability in accordance with 37 CFR 1.104. See MPEP § 821.04(a). Applicant is advised that if any claim presented in a continuation or divisional application is anticipated by, or includes all the limitations of, a claim that is allowable in the present application, such claim may be subject to provisional statutory and/or nonstatutory double patenting rejections over the claims of the instant application.

Because these inventions are independent or distinct for the reasons given

above and there would be a serious burden on the examiner if restriction is not required

because the inventions require a different field of search (see MPEP § 808.02),

restriction for examination purposes as indicated is proper.

Newly submitted claims 47-63 are directed to an invention that is independent or

distinct from the invention originally claimed for the above reasons. Since applicant has

received an action on the merits for the originally presented invention, this invention has

been constructively elected by original presentation for prosecution on the merits.

Accordingly, claims 47-63 are withdrawn from consideration as being directed to a non-

elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 2-12, 24-28 and 37-41 are rejected under 35 U.S.C. 102(e) as being

anticipated by Stacey et al (USP 6,654,376) (hereinafter "Stacey").

Regarding **claim 2**, in accordance with Stacey reference entirety, Stacey

discloses a method for controlling the dispatch of data on a telecommunication

Network (*Fig. 4 or 5 and col. 11, line 16 to col. 16, line 32 or col. 16, line 33 to col. 19,*

line 22), the method comprising:

receiving one or more data streams at an interface on the telecommunication

network (*Fig. 4; Received AAL2 CPS Packet*);

accumulating data from the one or more data streams for each of a plurality of

outgoing channels (*Fig. 4; elements 45 and 30*);

upon the accumulation of a threshold amount of data for one of the outgoing

channels, dispatching the accumulated data (*Fig. 4; 50 and Assembled CPS PDU of*

complete ATM SDU as discussed at col. 11, line 44 or Tmin timer expired and

accumulated data reached 47 octets discussed at col. 12, lines 38-41);

if there is no accumulated data for an outgoing channel then upon the receipt of

data for that outgoing channel which is not dispatched immediately, scheduling an

expiry time for the outgoing channel and associating (*47 and 48*) the outgoing channel

with the expiry time (*Fig. 4 or 5; elements 47 and 48*) (*col. 12, lines 43-65*); and,

when the expiry time occurs, using the association (*47 and 48*) to identify a group

of a plurality of outgoing channels associated with the expiry time and, for the outgoing

channels in the group, sending the accumulated data (*col. 12, lines 43-65*) wherein

associating the outgoing channel with the expiry time comprises placing information

identifying the outgoing channel in a list associated with the expiry time (*Fig. 4 or 5; 47-*

48 and col. 14, lines 43-44).

Regarding **claim 3**, in addition to features recited in base claim 2 (see rationales discussed above), Stacey further discloses wherein the list is a linked list and associating the outgoing channel with the expiry time comprises placing a pointer to a record associated with the outgoing channel into the linked list (*see Fig. 4 or 5 and link list having Head, Tail and Pointer depicted thereat or col. 14, line 29*).

Regarding **claim 4**, in addition to features recited in base claim 2 (see rationales discussed above), Stacey further discloses upon dispatching the accumulated data for an outgoing channel before the expiry time, deleting from the list the association of the outgoing channel with the expiry time (*col. 16, lines 26-29*).

Regarding **claim 5**, in addition to features recited in base claim 4 (see rationales discussed above), Stacey further discloses wherein the list comprises a doubly-linked list and deleting from the list the association of the outgoing channel with the expiry time comprises retrieving information identifying a previous outgoing channel in the doubly linked list and a next outgoing channel in the doubly linked list from a record associated with the outgoing channel (*doubly linked list is discussed at col. 14, lines 43-59*).

Regarding **claim 6**, in addition to features recited in base claim 2 (see rationales discussed above), Stacey further discloses wherein dispatching the accumulated data comprises dispatching one or more fixed-size cells (*see Fig. 1 or fully assembled AAL2 CPS PDU is a fixed sized cell and it is discussed at col. 16, lines 14-32*).

Regarding **claim 7**, in addition to features recited in base claim 6 (see rationales discussed above), Stacey further discloses wherein the threshold amount of data is an

amount of data required to fill one of the fixed-size cells *((Qhi+Qlo)>= 47) is discussed*

at col. 15, line 60).

Regarding **claim 8**, in addition to features recited in base claim 7 (see rationales

discussed above), Stacey further discloses wherein data for each outgoing channel is

carried by a connection on an ATM telecommunication link and the fixed-size cells are

ATM cells (*see Fig. 1 or col. 7, lines 9-12 and thereinafter*).

Regarding **claim 9**, in addition to features recited in base claim 7 (see rationales

discussed above), Stacey further discloses wherein receiving a plurality of data streams

at an interface comprises receiving data frames at the interface and accumulating

data destined for each of the plurality of outgoing channels comprises encapsulating the

data frames for an outgoing channel according to an ATM adaptation layer protocol

(*AAL2*) (*Fig. 4 or 4; elements 45, 30 and 50 depicted this claimed limitations*).

Regarding **claim 10**, in addition to features recited in base claim 1 (see

rationales discussed above), Stacey further discloses wherein dispatching the

accumulated data comprises sending one or more variable-size packets (*col. 8, lines 7-*

13 and thereinafter).

Regarding **claim 11**, in addition to features recited in base claim 10 (see

rationales discussed above), Stacey further discloses wherein the threshold amount of

data is less than a maximum amount of data capable of being carried by one of the

variable-size packets *((Qhi+Qlo)>= 47) is discussed at col. 15, line 60. ATM cell has 48*

octets. Thus, 47 is less than 48).

Regarding **claim 12**, in addition to features recited in base claim 10 (see

rationales discussed above), Stacey further discloses wherein the threshold amount of

data is equal to a maximum amount of data capable of being carried by one of the

variable-size packets (Fig. 1 depicted AAL2 cell has a maximum amount 47 bytes and

threshold of 47 is shown as *((Qhi+Qlo)>= 47) and discussed at col. 15, line 60)*.

Regarding **claim 24**, in accordance with Stacey reference entirety, Stacey

discloses a method for controlling the transmission of fixed-sized data cells (ATM cells)

on a telecommunication link (Fig. 4 or 5), the method comprising:

receiving one or more data streams at an interface to the telecommunication

link (*Fig. 4; Receiving AAL2 CPS Packets*);

assigning data from the data streams into fixed-size cells for transmission across

connections in the telecommunication link (*Fig. 4; Packet Assembly Process 50*);

upon the creation of a partially-filled cell to be transmitted on a connection,

scheduling an expiry time for the partially-filled cell (*cell required padding*) and

associating the connection with the expiry time (*Fig. 4; Packet Scheduler Process

44,Timer Expiry Process 49, Event Timer Ring Buffer 48 and Event Store 47 and col.

13, lines 8-16 and thereinafter*) (*note: as for partially-filled packet scheduling, Stacey

discloses if holdover timer expires before a common part sublayer payload data unit is

complete, the payload of that data unit is padded and dispatched (col. 9, lines 30-34

and thereinafter*);

when the expiry time occurs, using the association to identify a group of a

plurality of connections for which there are partially-filled cells all associated with the

expiry time and dispatching the partially-filled cells in the group (*col. 12, lines 43-65*) ;

and

   providing in a CU timer memory (47-48) areas corresponding to each of a

plurality of possible expiry times and wherein placing information identifying the

connection into an area in the CU timer memory corresponding to the expiry time (*see*

Fig. 4 for details of elements 47-48).

   Regarding **claim 25**, in addition to features recited in base claim 24 (see

rationales discussed above), Stacey further discloses wherein placing information

identifying the connection into an area in the CU timer memory comprises placing a

pointer to a head of a list of one or more records, including a record associated with the

connection, into the area in the CU timer memory corresponding to the expiry time (*see*

Fig. 4 or 5 for details elements 47-48 having head, tail and pointer stored in timer ring

buffers and event store as disclosed at col. 14, lines 43-64 and thereinafter).

   Regarding **claim 26**, in addition to features recited in base claim 24 (*see*

rationales discussed above), Stacey further discloses wherein the list comprises a

linked list (see Fig. 4 or 5; elements 47-48 or col.14, lines 43-64 and thereinafter).

   Regarding **claim 27**, in addition to features recited in base claim 24 (*see*

rationales discussed above), Stacey further discloses wherein using the association to

identify a group of a plurality of connections having partially-filled cells all associated

with the expiry time comprises traversing a linked list beginning at the location in

the CU timer memory corresponding to the expiry time (*see col. 14, lines 43-64 and*

thereinafter).

Regarding **claim 28**, in addition to features recited in base claim 17 (*see*

rationales discussed above), Stacey further discloses maintaining a record for each of

the plurality of connections wherein the record comprises a field for holding a pointer to

a next one of the records and traversing the linked list comprises retrieving from the

location in the CU timer memory a pointer to a first record associated with a first

connection and retrieving from the field of the first record a pointer to a second record

associated with a second connection having the same expiry time (*Fig. 4 or 5; elements*

47-48 and col. 14, lines 43-64 and thereinafter).

Regarding **claim 37**, in accordance with Stacey reference entirety, Stacey shows

an apparatus for forwarding data packets belonging to a plurality of outgoing

channels, each outgoing channel carrying data from one or more streams of data,

over a telecommunication link (*see Fig. 4 or 5 for the preamble environment*) the

apparatus comprising:

a outgoing packet assembler (*elements 45, 30 and 50*) connected to place data

packets onto the telecommunications link (*depicted as Assembled CPS PDU in Fig. 4 or*

5) and a combined use timer (*elements 49, 48 and 47*) connected to control the

transmission of partially-filled data packets over the telecommunications link (*partially-*

filled data packets are programmed using the Holdover Timer as discussed above), the

outgoing packet assembler being configured to provide a partial packet ready signal

(*depicted as VCID, Set Holdover in Fig. 4 or 5*) to the combined use timer upon the

creation of a partially-filled data packet containing less than a threshold amount of data

(*see Fig. 4 or 5 for connection details and col. 11, line 21 to col. 14, line 42*);

the combined use timer (*46, 48 and 47*) comprising a timer maintaining a current time value (*depicted as Current Time in Fig. 4 or 5*), a calculator (49) connected to determine an expiry time for a partially-filled packet corresponding to a partial packet ready signal, a data structure for holding information identifying groups of partially-filled . packets, each group of partially-filled packets identifying a corresponding plurality of partially-filled packets which share a common expiry time and comparison logic (*Fig. 4 or 5; elements 41 and 44*) connected to signal to the outgoing packet assembler when the expiry time for a group partially-filled packets has occurred (*see Fig. 4 or 5 for connection details and col. 14, lines 43-64*); wherein the data structure comprises a plurality of lists (*lists are depicted in elements 47 and 48*), one of the lists corresponding to each of a plurality of possible expiry times (*see Fig. 4 or 5 for details of elements 47-48*).

Regarding **claim 38**, in addition to features recited in base claim 37 (see rationales discussed above), Stacey also discloses wherein the lists comprises linked lists (*col. 14,lines 51-52*).

Regarding **claim 39**, in addition to features recited in base claim 38 (see rationales discussed above), Stacey also discloses wherein the linked lists comprise doubly linked lists (*col. 14,lines 51-52*).

Regarding **claim 40**, in addition to features recited in base claim 39 (see rationales discussed above), Stacey also discloses an interface system comprising control logic (41), a memory (47 and 48) holding a plurality of records (see Fig. 4 or 5 for details), the records containing information regarding states of each of the plurality

outgoing channels and a working memory (42 or 43) wherein the control logic is

configured to load into the working memory a current one of the records (see Fig. 4 or 5

and col. 13, line 42 to col. 14, line 11 and thereinafter).

Regarding **claim 41**, in addition to features recited in base claim 40 (see

rationales discussed above), Stacey also discloses wherein each of the records

comprises a previous connection in list field capable of holding a pointer identifying a

previous record in one of the doubly-linked lists and a next connection in list field

holding a pointer identifying a next record in the doubly linked list, each of the doubly

linked lists comprises a set of zero or more records, and the records in any of the sets

comprising two or more of the records are linked by pointers in their next connection in

list and previous connection in list fields (col. 13, line 8 to col. 14, line 64).

Regarding **claim 42**, in accordance with Stacey reference entirety, Stacey shows

an apparatus for forwarding data packets belonging to a plurality of outgoing

channels, each outgoing channel carrying data from one or more streams of data,

over a telecommunication link (see Fig. 4 or 5 for the preamble environment) the

apparatus comprising:

a outgoing packet assembler (elements 45, 30 and 50) connected to place data

packets onto the telecommunications link (depicted as Assembled CPS PDU in Fig. 4 or

5) and a combined use timer (elements 49, 48 and 47) connected to control the

transmission of partially-filled data packets over the telecommunications link (partially-

filled data packets are programmed using the Holdover Timer as discussed above), the

outgoing packet assembler being configured to provide a partial packet ready signal

(*depicted as VCID, Set Holdover in Fig. 4 or 5*) to the combined use timer upon the

creation of a partially-filled data packet containing less than a threshold amount of data

(*see Fig. 4 or 5 for connection details and col. 11, line 21 to col. 14, line 42*);

the combined use timer (*46, 48 and 47*) comprising a timer maintaining a current

time value (*depicted as Current Time in Fig. 4 or 5*), a calculator (49) connected to

determine an expiry time for a partially-filled packet corresponding to a partial packet

ready signal, a data structure capable of holding information identifying groups of

partially-filled packets which share a common expiry time and comparison logic (*Fig. 4

or 5; elements 41 and 44*) connected to signal to the outgoing packet assembler when

the expiry time for a group of one or more partially-filled packets which share a common

expiry time has occurred (*see Fig. 4 or 5 for connection details and col. 14, lines 43-64*);

and

a CU timer memory (47 and 48) comprising a plurality of locations, each of the

locations corresponding to a possible expiry time, each of the locations associated with

a set of zero or more of the outgoing channels which have partially filled packets having

expiry times matching the possible expiry time of the location (col. 14, lines 43-64).

Regarding **claim 43**, in addition to features recited in base claim 42 (see

rationales discussed above), Stacey also discloses wherein each of the locations in the

CU timer memory (47 and 48) is holding a pointer identifying a record corresponding to

a outgoing channel in a set of the outgoing channels which have partially filled packets

having expiry times matching the possible expiry time of the location (col. 14, lines 43-

64).

Regarding **claim 44**, in addition to features recited in base claim 32 (see

rationales discussed above), Stacey also discloses wherein the threshold is smaller

than a maximum data payload of one of the data packets (*col. 15, line 60*).

Regarding **claim 45**, in addition to features recited in base claim 32 (see

rationales discussed above), Stacey also discloses wherein the threshold is equal to a

maximum data payload of one of the data packets (*col. 15, line 60*).

Regarding **claim 46**, in addition to features recited in base claim 41 (see

rationales discussed above), Stacey also discloses means for encapsulating received

data according to an ATM adaptation layer protocol prior to placing the received data

into the fixed-sized data packets (*not shown in Fig. 4 or 5. It is inherent there is means*

for encapsulation as disclosed at col. 7, lines 9-28).

Response to Arguments

4. Applicant's arguments filed 05/29/07 have been fully considered but they are not

persuasive.

In the Remarks of the outstanding response, on page 12, pertaining the newly

added claims 47-63, Applicants argue the applied art of Stacey et al fails to teach the

claimed invention in a manner as claimed.

In response Examiner would like to inform the Applicants the argument has been

noted. However, the newly added claims 47-63 directed to non-elected claimed

invention; thus, they are not considered on the merits as discussed above.

Pertaining the rejection of claims 2-12 as being anticipated by Stacey et al under 35 U.S.C. § 102(e), Applicants state *"claim 2 recites "if there is no ... sending the accumulated data,"* and asserts the claimed limitation recites that *"multiple channels (i.e. "a plurality of outgoing channel")* are assigned a single *"expiry time."* Based on the aforementioned statement, Applicants argue *"this aspect of claim 2 differs from the Stacey et al. system which uses a Tmin Timer and a Holdover Timer for each VCC channel and not one timer for multiple outgoing VCC channels."*

In response Examiner respectfully disagrees and asserts the Applicants' statement is erroneous. The passage does not recite "multiple channels are assigned a single "expiry time," but rather recites a condition, if it is true, i.e., "no accumulated data", then "scheduling&associating" an "expiry time" for the outgoing channel (singular). Stacey et al, as clearly pointed out in the Office Action, does indeed anticipate the claimed limitation in the present condition. Applicants, in the argument, appear to argue that the teaching of Stacey et al's Holdover Timer and a Tmin Timer ("incorporated two timers per VCC channel") cannot be interpreted to corresponding to that claimed. Examiner argues otherwise.

Pertaining the rejection of claim 4, Applicants argue the reference of Stacey et al does not appear to teach *"deleting an entry comprising an association between a channel and an expiry time from a list as recited"*.

In response Examiner respectfully disagrees and asserts the Stacey reference, as clearly pointed out in the Office Action, does teach the argued feature or its equivalency at col. 16, lines 26-29.

Pertaining the rejection of claim 5, Applicants argue the Stacey reference does not appear to teach the claimed limitation in a manner as recited.

In response Examiner respectfully disagrees and asserts the Stacey reference, as clearly pointed out in the Office Action, does teach the argued feature or its equivalency at col. 14, lines 43-59, in addition to that previously discussed, pertaining the description of doubly linked list.

As for arguments pertaining the rejection of claims 24-28 and 37-41, they are similar to the above-discussed arguments. Thus, Examiner's response would have been the same as discussed above.

Examiner believes an earnest attempt has been made in addressing all of the Applicants' arguments. In a response to this Office Action, Applicants should incorporation the teaching of "*each interfaces 16 is configured to generate a cell sent signal 34. Cell sent signal 34 is generated when a partially filled ATM cell 24 becomes filled and can therefore be sent without delay*," as disclosed in the specification, on page 8, paragraph [0025] to better reflect the disclosed invention and from that taught and known in the prior art.

Due to the response fails to place the instant application in a favorable condition for allowance, the rejection is maintained.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Frank Duong whose telephone number is 571-272-

3164. The examiner can normally be reached on 7:00AM-3:30PM, Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Lynn D. Feild can be reached on 571-272-2092. The fax phone number for

the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only.

For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a

USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

FRANK DUONG
PRIMARY EXAMINER

July 31, 2007